BRUHAT BANGALORE MAHANAGARA PALIKE

DASARAHALLI ZONE

Name of the Work :- Augmentation of Water Supply throught Borewells , Network of Pipelines and ground water Recharges facilities in areas layouts of Shettyhalli Village. Abbigere Village & Chikkasandra village for Cost of Rs 2.10 Crore.

Job Code No:- **Detailed Estimate** **Est Cost:- 210 Lakhs**

Sl. No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
1	**Geophysical investigation** of site for Sinking borewell for supplying drinking water to the habitations either through the hand pump,MWS,P.W.S.S by vertical electrical sounding by adpoting venner or Schlumberger's method,including reconnaissance survey of Geological formation. Geophysical investigation of existing ground indecundity its quality & acceptability of the users indicating the location of site,recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 metre inconsolidated formation for proper seating of casing pipe,depth of drilling required to cover full depth of aquifer proposed to be tapped,probable yield and other information required including transportation of instrument and accesories to work site,engaging technical personal and labour required etc.,(Issue rate as on date 02/05/2019 It.13.04)								
	Chikksandra Surrounding Area								
	Ak Colony		1				1		
	Doreswamy layout		1				1		
	Kumepu Badavne		1				1		
	Babbanna layout		1				1		
	MM Layout		1				1		
	RR layout		1				1		
	Vigneshwara layout		1				1		
	Abhigere Surrounding Area								
	Sapthagiri		1				1		
	Unique Public School Road		1				1		
	Sheshagiri Layout		1				1		
	Appayanna Layout		1				1		
	3rd Cross Road Kalarasthe		1				1		
	Surya Enclave		1				1		
	Shettyhalli Surrounding Area								
	R K Enclave		1				1 180	5141	
	Pashim County		1				1 H	514.1	
	Kaveri Layout		1				1 0040	5655.1	
	Vinayaka layout		1				1		
	Madrahalli		1				1		
	~~Shettyhalli old village~~		~~1~~				~~1~~		
		Nos	18				18.00	3768.00	67824.00
2	**Sinking borewell of 165 mm** dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) (Issue rate as on date 02/05/2019 It.13.01) (180, 1, 0010) +10%								
	0 to 50 m	Rmt	18	50.00	290	319	900.00	347.00	312300.00
	50 to 100 m	Rmt	18	50.00	364	400.4	900.00	442.00	397800.00
	100 to 150 m	Rmt	18	50.00	387	425.7	900.00	456.00	410400.00
	150 to 200 m	Rmt	18	50.00	449	493.9	900.00	536.00	482400.00
	200 to 250 m	Rmt	18	50.00	527	579.7	900.00	634.00	570600.00

Sl. No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
	250 to 300 m	Rmt	18	50.00	558	613.8	900.00	700.00	630000.00
	300 to 350 m	Rmt	18	49.00	620	682	882.00	825.00	727650.00
3	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. -do- with **250mm outer dia (Casing Pipe)**(KPWD SR 2018-19 Page No:- Item No:- 11.56.7)	Rmt	18	25.00			450.00	2894.00	1302300.00
4	Supply of ISI Mark **175mm** nominal Bore, Plain end **steel casing Pipe**-grade of steel Fee 4100 of wakk thickness 504mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel electric or basic oxygen process in fandom length of 5 to 7mtr. Both ends threaded confirming to Is554/1985 one end fixed with socket confirming to IS 270:2001 and other end with screwed pipes. All pipes shall be reasonably free from defectes. The tubes shall be resonably straigth should be with ISI Marking Weighting 25.10 kg/mtr (Inclusive of all taxes and durties) Prices include Collar - medium duty. (Page No.III,It no.84)PRED SR 2012-13.	Rmt	18	60.00			1080.00	1325.00	1431000.00
5	Providing 175mm Dia M.S. Collar (P.NoXLVII,I.No.17) PRED SR 2012-13	No	180				180.00	150.00	27000.00
6	Providing 175mm dia Borewell Cap & Clamp Set (P.NoXLVII,I.No.17) SR 2018-19	No	18				18.00	1800.00	32400.00
7	Submersible **Three phase (6 inch/150mm)** and other equipments **pumps 15 HP/11KW (35 stage)** (Pg No. XLI, Sl.no.37) KPWD SR-2018-19	No	18				18.00	67724.00	1219032.00
8	Providing and fixing in trenches galvinised/mild steel tube 50mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for seperately) including cost of all materials, labour charges,HOM of equipment and testing complete as per specifications. Specification No. KBS 13.2.14/13.6 (page no.XLVII/It no.1)KPWD SR 2018-19.G.I. Pipe 50mm 'B' Class								
	Basic rate	415.00							
	A.W @ 6%	24.9							
	Total	**439.9**							
		Rmt	18	282.00			5076.00	439.90	2232932.00
9	Supplying and drawing **3 core flat PVC** sheathed submersible **pump cable** maufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 to IS 8130-1984 and virgin grade PVC insulation and power coating extruded PVC sheathed suitable for working voltage upto 1100 volts with specified IS 694:1990 and confirming to the attwached GTP of group A 3CX6.0 sq.mm (PWD Ele SR 2019-20,P-12/It-2.6.4)								
	Add 5mts for Switching	Rmt	36	286.00			10296.00	205.00	2110680.00
10	Providing and fixing in position 50mm Nominal bore non- return Valve verticle type of approved make including cost of all materials, labour HOM of equipment with all lead complete as per Specification(PWD SR 2018-19,P-XLVII SL No-16)								
	Basic rate	1800.00							
	A.W @ 6%	108							
	Total	1908.00							
		No	18				18.00	1908.00	34344.00
11	Spplying and fixing **50mm GI Union**.(PWD SR 2016-17,P-XXXIX)								

Sl. No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
12	Spplying and fixing **50mm GI Elbow.**(PWD SR 2016-17,P-XXXIX) 173, 7.6, N100F	No	18		223.20	175 192.5	18.00	223.70	4027.00
13	Spplying and fixing **50mm GI Nipple.**(PWD SR 2016-17,P-XXXIX) 240.9	No	18		219 21.9		18.00	111.80	2012.00
14	175, 15.6, N170F Spplying and fixing **50mm GI Hose collers**(PWD SR 2016-17,P-XXXIX) 192.5	No	18		175 17.5		18.00	104.30	1877.00
15	172, 6.5, N90F Fabricating ,Supplying and mounting MS Box made out of 16swg suitable for floor mounting , fully weather proof with provision for better dissipation provided with hinged front cover,equipped with tamper proof locking arrengements with suitable size clamps,if necessary cable entry gland and box shoud be finished with red oxide and two coats of approved colour enameled metal paint etc,complete(Outdoor Panel Box upto 15HP) (PWD SR 2018-19.P-XLVII SL-12)	No	846		219 21.9	240.9	846.00	103.00	87138.00
	Basic Rate	No	18				18.00	16430.00	295740.00
	Aria Weightage @6%	15500.00							
	Total	930.00							
		16430.00							
16	Supplying and fixing angle iron frame work Fabricated out of MS angle iron and MS flat with bolts nuts washers,etc and painted with two coats of Red oxide and pants (BWSSB SR 2016-17.P-524 I-38(a)	No	18				18.00	338.00	6084.00
17	Supplying and fixing 20" x 20" x 2.5" polished **wood board** made of not less than 15mm thick plank on both the sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., P.no.24 / I no. 5.6.6 KPWD ELE SR 2019-20	No	18				18.00	292.00	5256.00
18	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. 50-63Amps TPN (PWD Ele SR 2019-20,P-27/Sl no.5.17.9)	No	18				18.00	2397.00	43146.00
19	Supplying, fixing and wiring Earth Leakage Miniature Circuit Breaker (ELMCB) 240/450V up to 300mA sensitivity on existing wood/panel board.(PWD Ele SR 2019-20,P-27/Sl no.5.20.4)								
	63 Amps 4 pole	No	18				18.00	3200.00	57600.00
20	Supplying of **TPST with rewirable porcelain** channels in SM encloser made out of 14 SWG powder coated point of approved colour 63 amps (PWD Ele SR 2019-20,P-24,It-5.5.2)	No	18				18.00	3480.00	62640.00
21	Supplying and fixing of LED type panel board indicating lamp with required colour suitable for 230/440v A.C. 50 Hz 12/24v D.C. (PWD Ele SR 2019-20,p-29,Sl no.5.38)	No	18				18.00	430.00	7740.00

Sl. No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
22	Suppling fully automatic **star delta starter** unit push button type with suitable wires 2 conductors and adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400/440 volts phase and wired after fixing to the existing wooden board for motor. Above 12.5 HP upto 25 HP (PWD Ele SR 2019-20,p-24,Sl no.-5.2.2)							191 (29.1) P270A	9500 + 950 10,450
		No	18				18.00	8000.00	144000.00
23	Supplying and fixing **single phase preventer** using necessary wires over an existing panel board suitable for motar up to 20 HP capacities.(PWD Ele SR 2019-20,p-24/Sl no. 5.3)								
		No	18				18.00	745.00	13410.00
24	**Wiring for lighting/power circuit** using one of FRLS PVC insulated 1100V grade multistrand copper conductor single core wire in open or concealed system of wiring as per IS 694:1990 & conforming to the attached GTP of group A. 4 sqmm (PWD Ele SR 2019-20,p-6,It-2.3.4								
		Mtrs	18	20.00			360.00	45.00	16200.00
25	Supplying fixing and wiring **heavy duty low voltage capacitors** conforming to IS 2834 phase 400/440 volts grade, for power factor improvement of rotating machinery.(PWD Ele SR 2019-20 ,p-29/Sl no.5.37)								
		No	72				72.00	400.00	28800.00
26	Supplying, fixing, wiring, **earth electrode** for grounding conduits, I.C cotouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. The connection from the to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia (PWD Ele SR 2019-20, p-40,Sl no.6.1)							193 45, (P430A)	3750 375 4,125
		No	18				18.00	2999.70	53995.00
27	**Digging of trench** of 0.36mtrs deepx0.5 mtrs wide refilling the trench to the required gorund level and consolidating etc., complete (PWD Ele SR 2019-20,p-41,It-6.6.2) hard soil								
		Mtrs	18	10.00			180.00	102.00	18360.00
28	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm PWD Ele SR 2019-20,p-40,It-6.4.4)							190 (22.3) P280L	165 16.5 181.5
		Mtrs	18	12.00			216.00	150.00	32400.00
29	**Labour charge for laying 1.1 KV class UG cable** in existing trench GI pipe / stoneware pipe/ on wall / on poles as required in existing trench/duct. 6 sq mm to 16 sq mm(PWD Ele SR 2019-20 ,p-41,It-6.5.1)								
		No	18	20.00			360.00	11.88	4277.00
30	Supplying and fixing class-A(medium duty) **GI pipe wall** thickness not less then 3.25mm **on pole/wall/drain** crossing with necessary clamping arrangements for UG cable of 1.1KV class 40mm(PWD Ele SR 2019-20,p-41,It-6.9.1)								
		Rmt	18	2.00			36.00		
	Drain Crossing	Rmt	10	1.50			15.00		
							51.00	335.00	17085.00

Sl. No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
31	Supplying and fixing **LT cast iron pot heads** suitable for 1.1KV class UG cable filled with necessary bitumen / insulating compound complete with terminals,clamps bolts and nuts and washer etc.,complete for 16 sq mm as per specifications.(PWD Ele SR 2019-20 ,p-42,It-6.10.1)								
		No	18				18.00	260.00	4680.00
32	Supplying and fixing **porcelain fuse channel** with cut out on the existing wooden block and wiring complete 63 amps(PWD Ele SR 2019-20,p- 25,It-5.7.3)								
		No	54				54.00	227.00	12258.00
	Water Supply Pipeline works								
33	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5								
	(KPWD SR 2018-19, P-99, It-13.87.6)								
	Asphalt Road Main Line	Cum	20	30.00	0.90	0.60	324.00		
	CC Road Main Line		20	20.00	0.90	0.60	216.00		
	Towards RO Plant								
							540.00	475.94	257008.00
	Rate Analysis								
	Basic Rate	449.00							
	Area Weightage 6%	26.94							
	Total :	475.94							
34	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (external work) - 50mm nominal OD pipes								
	(KPWD SR 2018-19, P-99, It-13.87.6)								
	Asphalt Road Main Line	Rmt	20	30.00			600.00		
	CC Road Main Line		20	20.00			400.00		
	For RO Plant		2	30.00			60.00		
							1060.00	457.92	485395.00
	Rate Analysis								
	Basic Rate	432.00							
	Area Weightage 6%	25.92							
	Total :	457.92							
35	Making connection of G.I.distribution branch with G.I.main of 25mm to 40mm. Nominal bore, including cutting and threading the pipes,providing and fixing Tee, nuts,labour for all item of works,testing and HOM of equipments complete as per specifications.								
	(P.No.93/ I.No. 13.20 of KPWD SR 2018-19)								
		Rmt	100				100.00		
							100.00	511.98	51198.00
	Rate Analysis								
	Basic Rate	483.00							
	Area Weightage 6%	28.98							
	Total :	511.98							
36	Stone dust / Grit 4.75 mm to 0.075 mm								
	(KPWD SR 2018-19, P-II, It-0400)								
	Asphalt Road Main Line	Cum	20	30.00	0.90	0.20	108.00		
	CC Road Main Line		20	20.00	0.90	0.20	72.00		
	For RO Plant also								
							180.00	1060.00	190800.00

SL No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
	Rate Analysis								
	Basic Rate	1000.00							
	Area Weightage 6%	60.00							
	Total :	1060.00							
37	KSRB 2-4 : Refilling available around earth pipe lines,cables in layers mot exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. And lift upto 1.5m. Including cost of all labour complete as per specifications.								
	(KPWD SR 2018-19, P-7, it-2.11)								
	60% of Qty Vide item No.34						324.00		
							324.00	128.26	41556.00
	Rate Analysis								
	Basic Rate	121.00							
	Area Weightage 6%	7.26							
	Total :	128.26							
38	Loading and unloading of stone boulder/stone aggregates/sand/kanker/ moorum. KSRRB M100-1:Placing tipper at loading point, loading with front end loader,dumping, turning for return trip, excluding time for haulage and return trip complete as per specification MORTH Chapter 1							Pg.40 1.10	
	(KPWD SR 2018-19,P-136, it.17.1)								
	30% of Qty Vide item No.34						162.00		
							162.00	97.96	15870.00
	Rate Analysis								
	Basic Rate	57.00						71 79.4	
	Conveying for 16km	40.96							
	Total :	97.96							
39	KSRB 2-4 : Providing and fixing in position brass gate valve with C.I.wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials,labour and HOM of equipments with all leads complete as per specifications.								
	(P.No.94/ I.No. 13.37 of KPWD SR 2018-19)								
		Each	53				53.00		
							53.00	1843.34	97697.00
	Rate Analysis								
	Basic Rate	1739.00							
	Area Weightage 6%	104.34							
	Total :	1843.34							
40	KSRB13-6.2-1 : Providing and fixing in position brass stop cock of approved quality 15mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.2 / 13.3								
	(Pg No:-93/I.No:-13.26 of KPWD SR 2018-19 2018-19)								
		Each	105				105.00		
							105.00	149.46	15693.00
	Rate Analysis								
	Basic Rate	141.00							
	Area Weightage 6%	8.46							
	Total :	149.46							
41	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406.)								
	((Page No. 155, I.No. 20.18 of KPWD S.R 2018-19).								
	Asphalt Road Main Line	Cum	20	30.00	0.90	0.20	108.00		
	CC Road Main Line		20	20.00	0.90	0.20	72.00		
	For RO Plant also								

No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
	Rate Analysis						180.00	2001.28	360230.00
	Basic Rate	1888.00							
	Area Weightage 6%	113.28							
	Total :	2001.28							
42	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. Clause 502 of MORTH V revision Pg. 66 5.1								
	(Page No. 158, I.No. 21.6 of KPWD S.R 2018-19).								
		Sqm	20	30.00	0.90		540.00		
	Rate Analysis						540.00	33.92	18317.00
	Basic Rate	32.00						44	
	Area Weightage 6%	1.92						4.4	
	Total :	33.92						48.4	
43	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision - do - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen Pg. 70 5.12(A)								
	(Page No. 159, I.No. 21.17.6 of KPWD S.R 2018-19).								
		Cum	20	30.00	0.90	0.05	27.00		
	Rate Analysis						27.00	8545.72	230734.00
	Basic Rate	8062.00						9867	
	Area Weightage 6%	483.72						986.7	
	Total :	8545.72						10853.7	
44	KSRRB M500-10. Providing and applying tack coat using 80/100 grade bitumen(VG10) in boiler fitted with spray set distributor at the rate of 0.25 kg per sqm on the existing prepared bituminous surface cleaned with mechanical broom. (primed surface) complete as per specifications. Clause 503 of MORTH V revision Pg. 66 5.3								
	(Page No. 159, I.No. 21.10 of KPWD S.R 2018-19).								
		Sqm	20	30.00	0.90		540.00		
	Rate Analysis						540.00	10.60	5724.00
	Basic Rate	10.00						12	
	Area Weightage 6%	0.60						1.2	
	Total :	10.60						13.2	
45	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision - do - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4% VG-30 Bitumen Pg. 72 5.16(A)								
	(Page No. 162, I.No. 21.22.6 of KPWD S.R 2018-19).								
		Cum	20	30.00	0.90	0.04	21.60		
	Rate Analysis						21.60	10001.10	216024.00
	Basic Rate	9435.00						11508	
	Area Weightage 6%	566.10						1150.8	
	Total :	10001.10						12658	

Sl No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount
16	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5								
	(KPWD SR 2018-19, P-99, It-13.87.6)								
	Chambers	Cum	18	1.60	1.60	1.20	55.30		
							55.30	475.94	26318.00
	Rate Analysis								
	Basic Rate	449.00							
	Area Weightage 6%	26.94							
	Total :	475.94							
17	Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Pg. 174 20.28								
	(KPWD SR 2018-19, P-13, It-4.3)								
	Chambers	Cum	18	1.50	1.50	0.15	6.08		
	CC Road Main Line		18	20.00	0.90	0.10	32.40		
							38.48	5408.12	208077.00
								6442	
								644.2	
	Rate Analysis							7086.2	
	Basic Rate	5102.00							
	Area Weightage 6%	306.12							
	Total :	5408.12							
18	Providing and laying in position reinforced cement concrete of Design Mix M25 with OPC @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregtes @ 0.47cum, with super plasticisers @ 3 liters confirming to IS 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columns pillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM curing, complete but excluding cost of reinforcement as per specifications.								
	(KPWD SR 2018-19, P-14, It-4.10)								
	Raft	Cum	18	1.50	1.50	0.15	6.08		
	Wall	18	4	1.50	0.20	0.90	19.44		
	CC Road Main Line		18	20.00	0.90	0.20	64.80		
							90.32	5647.68	510070.00
	Rate Analysis								
	Basic Rate	5328.00							
	Area Weightage 6%	319.68							
	Total :	5647.68							
19	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2								
	(KPWD SR 2018-19, P-16, It-4.31)								
	Chambers	Sqm							
	Wall	8	18	1.50		0.90	194.40		
							194.40	379.48	73771.00
	Rate Analysis								
	Basic Rate	358.00							

Sl No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
	Area Weightage 6%	21.48							
	Total :	379.48							
50	Providing and fixing RCC precast cover slab of 250 mm thick for Chamber in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including formwork, lift charges, curing and concrete finished surfaces on both sides etc., complete as per drawing and directions of engineer-in-charge.Data rate								
			Data rate						
	Chambers Top Slab	Sqm	18	1.50		1.50	40.50		
							40.50	5418.00	219429.00
	Rate Analysis								
	Basic Rate	5418.00							
	Total :	5418.00							
51	KSRB 4.9.2 : Providing T .M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 for TMT Bars Fe500 Complete with all lead and lift and as per the direction of the Engineer-in-Charge.								
			(Page No-4, 46.2 of KPWD S.R 2018-19)						
	Consider 70kg/Cum	Tonne							
	For M25 Chambers		25.5	75.00			1913.63		
							1.91	92662.02	177320.00
	Rate Analysis								
	Basic Rate	87417.00							
	Area Weightage 6%	5245.02							
	Total :	92662.02							
			RO Plant						
52	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5								
			(KPWD SR 2018-19, P-99, It-13.87.6)						
	For 2 No.s	Cum							
	For Levelling lowering		2	5.00	4.00	0.30	12.00		
	For ssm surface		4	4.30	0.70	1.20	14.45		
			4	3.80	0.70	1.20	12.77		
	Front side		2	4.30	0.90	0.30	2.32		
							41.54	484.92	20143.00
	Rate Analysis								
	Basic Rate	449.00							
	Area Weightage 8%	35.92							
	Total :	484.92							
53	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement 180kgs,with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @o.57 cum machine mixed, concrete laid in layers not exceeding 15cms thick, well compacted, in foundation and plinth, including cost all materials, labour, HOM of machinery, curing complete as per specifications.								
			(KPWD SR 2018-19, P-13, It-4.3)						
	For 2 No.s	Cum							
			4	4.30	0.70	0.10	1.20		
	For ssm surface		4	3.80	0.70	0.10	1.06		
			2	4.00	3.50	0.10	2.80		

Sl No	Description of Item	Unit	No	Length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
	Front side								
			2	4.30	2.30	1.10	[illegible]		
							5.94	5510.16	32740.00
	Rate analysis								
	Basic Rate	5102.00							
	Area Weightage 8%	408.16							
	Total :	5510.16							
[illegible]	Providing and constructing granite/ trap/ basalt size stone masonry in basement with cement mortar 1: 6 stone chisel dressed in courses not less than 15 cms high bond stones at two m apart in each course including cost of materials, labour, curing complete as per specifications								
	For 2 No.s	KPWD SR 2018-19, 5-25, 5-5.9							
		Cum							
	For sum surface		4	4.30	2.60	1.00	10.32		
	Front side		4	3.30	2.60	1.00	9.22		
			2	4.30	2.90	2.60	4.84		
							26.08	3921.84	102287.00
	Rate analysis								
	Basic Rate	3483.20							
	Area Weightage 8%	438.64							
	Total :	3921.84							
35	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs with 20mm and down size graded granite metal coarse aggregate @ 0.xx cum and fine aggregates @ 0.45 cum, machine mixed, concrete laid in layers not exceeding 15 cm thick well compacted in foundation and plinth and sills, including cost all materials, labour, HOM of machinery, curing complete as per specifications								
		KPWD SR 2018-19, 5-25, 5-4.6							
	For 2 No.s	Cum							
			4	4.30	2.60	1.10	2.78		
	For sum surface		4	3.50	2.60	1.10	2.91		
	Front side		2	4.30	2.90	1.10	2.7		
							2.72	3855.76	15916.00
	Rate analysis								
	Basic Rate	3422.00							
	Area Weightage 8%	433.76							
	Total :	3855.76							
36	Providing and constructing load bearing wall with solid concrete blocks of size 400x250x200 mm having block density not less than 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 conforming to IS 2185 Part-1 2005 and constructed with CM 1:6, as per IS 2572:2005 including cost of all materials, labour charges, scaffolding, curing complete as per specifications.								
		KPWD SR 2018-19, 5-27, 5-5.27.2							
		Sqm							
	For 2 No.s		4	4.30		3.00	51.60		
			2	3.50		3.00	21.00		
	For sum surface		4	1.25		3.00	3.00		
			4	4.90		0.60	11.76		
	Parapet wall		4	3.50		0.60	8.40		
							95.76	1029.24	98560.00
	Rate analysis								
	Basic Rate	953.00							
	Area Weightage 8%	76.24							
	Total :	1029.24							

Sl. No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
57	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70cum and fine aggregtes @ 0.47cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in ground floor level for roof slabs, staircase, lintles and beams retaining walls, return walls, walls (any thickness) including attached pilasters, columns, ,pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications.								
	(KPWD SR 2018-19, P-14, It-4.12)								
	For 2 No,s	Cum							
	Plinth Beam over SSM		4	4.30	0.20	0.20	0.69		
	For Lintel		4	3.50	0.20	0.20	0.56		
			4	4.30	0.20	0.15	0.52		
	For Slab		4	3.50	0.20	0.15	0.42		
			2	4.90	3.80	0.15	5.59		
							7.77	6528.60	50727.00
	Rate Analysis								
	Basic Rate	6045.00							
	Area Weightage 8%	483.60							
	Total :	6528.60							
58	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500								
	(KPWD SR 2018-19, P-18, It-4.46.2)								
	For 2 No,s	Tonne							
	Consider 90kg/Cum For M25		1	7.77	90.00		699.30	Kgs	
						In Tonne	0.70	94410.36	66021.00
	Rate Analysis								
	Basic Rate	87417.00							
	Area Weightage 8%	6993.36							
	Total :	94410.36							
59	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundation s, footings ,bases of columns for mass concreet including cost of all materials, labour complete as per specifications. (P-16, I-4.28)								
	(KPWD SR 2018-19, P-16, It-4.28)								
	For 2 No,s	Sqm							
	Plinth Beam over SSM		4	4.30		0.20	3.44		
			4	3.50		0.20	2.80		
	For Lintel		4	4.30		0.15	2.58		
			4	3.50		0.15	2.10		
							10.92	278.64	3043.00
	Rate Analysis								
	Basic Rate	258.00							
	Area Weightage 8%	20.64							
	Total :	278.64							
60	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for flat surface such as suspended floors, roofs, landings, balconies and likes, thickness above 200 mm including cost of all materials, labour complete as per Specification. Specification No. KBS 4.6.2								
	(KPWD SR 2018-19, P-16, It-4.30)								
	For 2 No,s	Sqm							

I.No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
	For Slab								
			2	4.00	3.50		28.00		
	Rate Analysis								
	Basic Rate						28.00	475.20	13306.00
	Area Weightage 8%	440.00							
	Total :	35.20							
		475.20							
61	Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles landing, laid on a bed of 12mm thick cement mortar 1:3 mix finished with flush pointing using white cement, including cost of materials, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification. (Page No.112, I.No.14.62 of KPWD S.R 2018-19).								
	For 2 No.s	Sqm							
	For Slab								
	Front side		2	4.00	3.50		28.00		
			2	4.30	0.90		7.74		
	Rate Analysis						35.74	1330.56	47554.00
	Basic Rate	1232.00							
	Area Weightage 8%	98.56							
	Total :	1330.56							
62	Providing and fixing colour glazed tiles of size 300mmx600mm for walls with borders of size 300x100mm, set in Cement Mortar 1:3 and pointed with white cement with matching colour pigment with necessary curing, cleaning including providing and removing scaffolding wherever necessary etc., complete. The work includes cost of all materials, mortar, labour charges for all items of work, hire charges for equipment etc., complete as per specification. (Page No. 110, I.No. 14.64 of KPWD S.R 2018-19).								
	For 2 No.s	Sqm							
	For Wall		4	4.00		1.20	19.20		
			2	3.50		1.20	8.40		
			4	0.25		1.20	1.20		
	Front side		2	1.30		1.00	1.30		
							30.10	1308.96	39400.00
	Rate Analysis								
	Basic Rate	1212.00							
	Area Weightage 8%	96.96							
	Total :	1308.96							
63	Providing 18mm thick cement plaster in single coat with cement mortar 1:3 to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. (Page No. 116, I.No. 15.15 of KPWD S.R 2018-19).								
	For 2 No.s	Sqm							
	For External Walls		4	4.30		3.60	61.92		
			2	3.50		3.60	25.20		
			4	0.25		3.00	3.00		
							90.12	298.08	26863.00
	Rate Analysis								
	Basic Rate	276.00							
	Area Weightage 8%	22.08							
	Total :	298.08							
64	KSRB15-3 : Providing 15mm thick cement plaster in single coat with cement mortar 1:3 to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. (Page No. 113, I.No. 15.12 of KPWD S.R 2018-19).								

Sl No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
	For 2 No.s								
	For Internal Walls	Sqm							
			4	4.00		3.00	48.00		
			2	3.50		3.00	21.00		
			4	0.25		3.00	3.00		
							72.00	252.72	18196.00
	Rate Analysis								
	Basic Rate	234.00							
	Area Weightage 8%	18.72							
	Total :	252.72							
65	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. (Page No. 120, I.No. 15.53.2 of KPWD S.R 2018-19).								
	For 2 No.s	Sqm							
			4	4.30		3.60	61.92		
			2	3.80		3.60	27.36		
			4	0.25		3.00	3.00		
							92.28	110.16	10166.00
	Rate Analysis								
	Basic Rate	102.00							
	Area Weightage 8%	8.16							
	Total :	110.16							
66	Providing and applying two coats with oil bound washable distemper of approved brand and shade on wall surface including priming coat with distemper primer after throughly brooming the surface free from mortar drpos and other foreign matter including preparing the surface even asn sand paper smooth, cost of materials, labour, complete as per specifications. (Page No. 119, I.No. 15.49.1 of KPWD S.R 2018-19).								
	For 2 No.s	Sqm							
	Internal wall Paint						72.00		
							72.00	118.80	8554.00
	Rate Analysis								
	Basic Rate	110.00							
	Area Weightage 8%	8.80							
	Total :	118.80							
67	KSRB 7.5 : Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations complete including pulling hooks, 4Nos. handles with all fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery complete as per specifications. Shutter size 3mx2.8 m. Specification (Page No. 119, I.No. 15.49.1 of KPWD S.R 2018-19).								
	For 2 No.s	Sqm							
	Rolling Shutters		2	3.00		2.10	12.60		
							12.60	2815.56	35476.00
	Rate Analysis								
	Basic Rate	2607.00							
	Area Weightage 8%	208.56							
	Total :	2815.56							

Sl No	Description of Item	Unit	No	length in m	Width in m	Depth in m	Quantity	Rate in Rs	Amount in Rs
8	Supplying and installation of 2000 LPH RO drinking water treatment plant comprising of raw water storage tank, anit scaling dosing system with pump and tank sand filter activated carbonfilter, hagh pressure pump R.O membranes, R.O pressure tubes, skid house the complete R.O palnte, control panel, chemical cleaning tank, ph dosing system with pump and dosing tank product water storage UV sterilizer, interconnection piping whithin SKID complete instrumentation with necessary gagues and flow indicator as required in the plante with PH meeter etc.,(Approved Data rate)								
	For 2 No.s	Approved rate							
		No.s	2				2.00		
							2.00	650000.00	1300000.00
9	BESCOM deposit Charges and miscellaneous								
		Each	21.00				21.00	13500.00	283500.00
10	0302 Polyethylene water storage tank of specified capacity and make								
		L	2	5000.00			10000.00	5.08	50800.00
								Sub Total	18371650.00
								GST Charges 12%	2204598.00
								DPR and PMC Charges 2%	420000.00
								Miscelleneous & Rounding off	3752.00
								Grand Total	21000000.00

CERTIFICATE

1.The site has been inspected and the work is found to be necessary.
2.The estimate is based on KPWD SR of 2018-19, RDWS 2019-20 IR 02.05.2019 and Ele SR-2019-20
3.The provisions were made in this estimate are necessary and adequate.
4.The area comes under the Bruhat Bengaluru Mahanagara Palike Limits.

Asst Engineer
Ward No 12
BBMP Banglore

Asst Executive Engineer
Shettyhalli Sub-Division
BBMP

Executive Engineer
Dasarahalli Division
BBMP

Technically Sanctione for Rs. 210.00 lakhs/-
Rs. In words Two Hundred & Ten lakhs only
Under 15th Finance
Job Code No.
Registered as CE No. CE/02/75/29/2021-22 Subject to conditions contained in Enclosed Memo No CE/02/75/29/2021-24 Dt: 14/01/2022

AE/JE TA CE(D)

ADMINISTRATIVE SANCTIONED FOR 210.00 Two Hundred Ten lakhs
Under Head of Account P-3803
15th Finance
Registered as No. EE/DD/AS...24... Subject to conditions contained in Enclosed Memo
No EE/DD/AS.24 Dt: 10.10.2022

JE/AE Exe. Engr (DASARAHALLI) BBMP